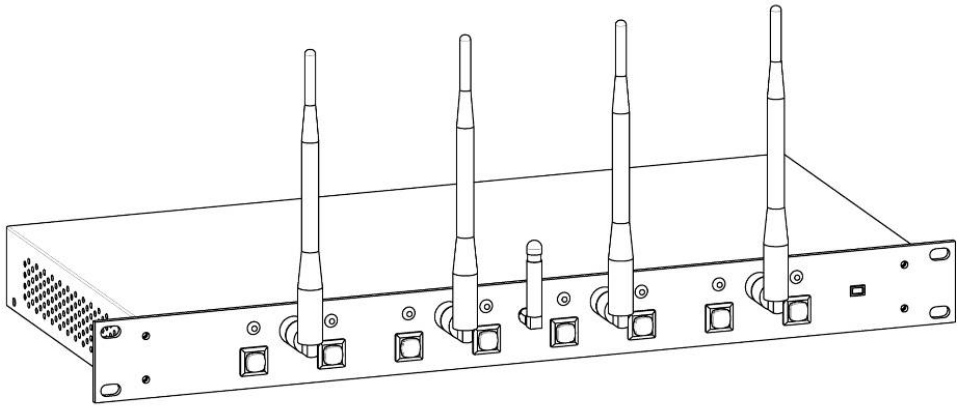
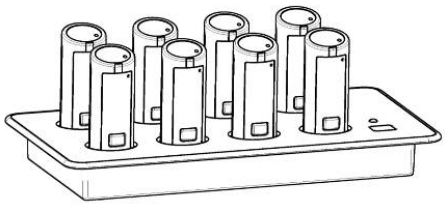
# REVOLABS SOLO ™ EXECUTIVE

## Wireless Microphone System

**Models: 01-EXESYS, 01-EXESYS4, 03-EXESYSEU and 03-EXESYSEU4**





# Installation and Operation Guide

**Revolabs, Inc.**

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Revolabs Solo™ Executive Manual
01-EXEMAN-PAP-11
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# Safety and General Information

Please read the following information to ensure safe and efficient use of your Revolabs system.

FCC User Information

FCC Registration Number: 0014898290

FCC ID Number: T5V01EXESYS Revolabs Solo™ Executive Base Station

FCC ID Number: T5V01EXEMIC Revolabs Solo™ Executive Microphone

## FCC Notice to Users

Users are not permitted to make changes or modify the equipment in any way. Changes or modifications not expressly approved by Revolabs, Inc. could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## IMPORTANT NOTE: Federal Communications Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits for an uncontrolled environment.

## Professional Installation Recommended

This product should be professionally installed.

## Industry Canada Notice to Users

Operation is subject to the following two conditions:

(1) This device may not cause interference and

(2) This device must accept any interference, including interference that may cause undesired operation of the device Ref IC: RSS 210 Sec. 5.11. The term "IC:" before the certification/registration number only signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment. See Ref IC Self-Marking 6(f) and RSP-100 Sec. 4.

IC ID Number: 6455A-01EXESYS Revolabs Solo™ Executive Base Station

IC ID Number: 6455A-01EXEMIC Revolabs Solo™ Executive Microphone

## Restricted use with certain medical devices

## Hearing Aids

Some devices may interfere with some hearing aids. In the event of such interference, you may want to consult with your hearing aid manufacturer to discuss alternatives.

## Other Medical Devices

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

## Export Law Assurances

This product is controlled under the export regulations of the United States of America and Canada. The Governments of the United States of America and Canada may restrict the exportation or re-exportation of this product to certain destinations. For further information contact the U.S. Department of Commerce or the Canadian Department of Foreign Affairs and International Trade. The use of wireless devices and their accessories may be prohibited or restricted in certain areas. Always obey the laws and regulations on the use of these products.

## 01-EXESYS 8 and 4 channel system North America UPCS Usage Restriction

Due to the UPCS frequencies used, this product is licensed for operation only in the United States of America and Canada.

## 03-EXESYSEU 8 and 4 channel system European Union Usage Restriction

Due to the DECT frequencies used, this product is licensed for operation only in the European Union countries.

## European Compliance

This equipment has been approved in accordance with Council Directive 1999/5/EC “Radio Equipment and telecommunications Equipment.

CE

Conformity of the Equipment with the guidelines below is attested by the CE mark.

## Model Numbers:

| | |
|---|---|
| 03-EXERACEU(4)-BLK-11(NM) | Revolabs Solo™ Executive Base Station |
| 03-EXEMICEU-BLK-11 | Revolabs Solo™ Executive Microphone |
| 03-EXECHGEU-STD-11 | Revolabs Solo™ Executive Charger |
| 05-TBLMICEU-OM-BLK-11 | Revolabs Solo™ Executive Table Microphone Omni |
| 05-TBLMICEU-DR-BLK-11 | Revolabs Solo™ Executive Table Microphone Cardioid |
| 06-XLRMICEU-OM-BLK-11 | Revolabs Solo™ Executive XLR Microphone Adapter |

## Standards to which Conformity is declared:

RF ETSI EN 301 406 V 1.4.1 03/2001

EMC ETSI EN 301 489-6 v1.2.1 (2002-04)

## WEEE Notification:

The Waste Electrical and Electronic Equipment (WEEE) directive (2002/96/EC) is intended to promote recycling of electrical and electronic equipment and their components at end of life.

## 2003/11/EC & 2002/95/EC “RoHS Compliance Directive”:

The products referenced herein are in compliance with the EU directive 2003/11/EC and EU directive 2002/95/EC.

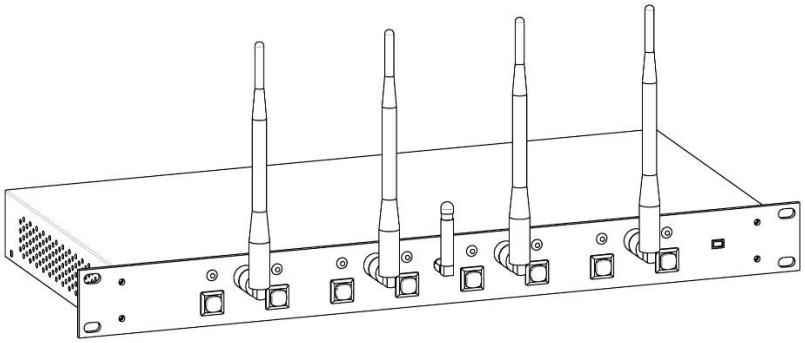
## Safety Compliance

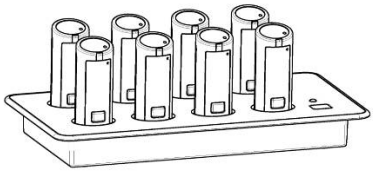
TUV SUD AMERICA

# Introduction

Congratulations on your purchase of a Revolabs digital wireless microphone system! This system utilizes 1.9 GHz DECT technology, and high band-width audio from multiple wireless microphones, enabling clear, reliable, untethered communications in audio and video conferencing environments.

The Revolabs Solo™ Executive Wireless Microphone System is a unique marriage of innovative technology and ergonomic design, employing Multi-Carrier, Time Division Multiple Access and Time Division Duplex (MC/TDMA/TDD) radio transmissions both to and from the microphone.





This technology allows the microphones to co-exist with other wireless products such as wireless LANs (802.11b&g), and includes digital encryption technology to ensure secure communications.

## System Components

Depending on which system you've purchased, your Revolabs Solo™ Executive System package contains the following:

- Rackmountable 4 or 8 channel Base Station
- Microphone Charger Base
- Solo wireless microphones, (earpieces and lanyards wearable microphone only).

The Base Station houses the processor and one end of the wireless connection. It features either one pair (4 Mic system) or two pairs (8 Mic system) of diversity

antennas and offers individual line-level audio in/out for each microphone channel. This allows for additional post processing such as:

- Acoustic echo cancellation (AEC)
- Feedback elimination
- Level control
- Equalization
- Noise cancellation

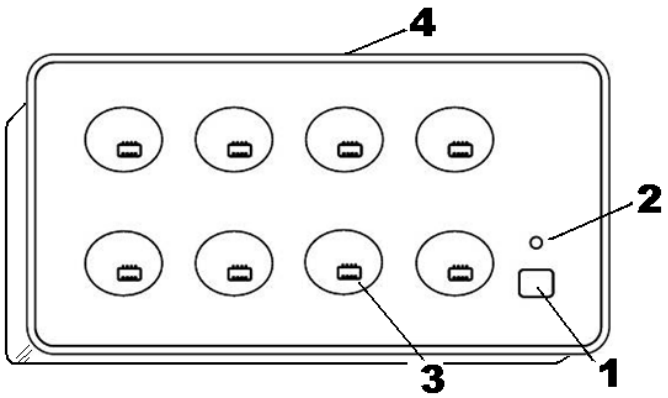
The system is designed to optimize conference-call productivity by providing:

- Consistent audio input from all participants
- Minimum room noise
- Mute control
- Wireless encryption
- Resynchronization
- Full duplex audio.

The Charger Base unit stores and charges the wireless microphones when not in use.

# Using the Revolabs Solo™ Executive Charger Base

When Microphones are not in use, they should be properly inserted into the Solo Executive Charger base. It is important to ensure that all system microphones are inserted fully in the base so that charging will occur. Features of the base are shown in the following figure.




1. **System Mute Switch** — overrides individual Microphone mute function.
2. **LED indicator** — power / mute status indicator.
3. **Charger Bays** — charges up to 8 Microphones.
4. **Power Cord Receptacle** — power supply input (on rear).

## Power Module

The Charger Base requires 5VDC power, provided by the AC Adapter. Plug the supplied AC adapter into an appropriate power outlet 110-240 AC, 50-60Hz. The power LED on the Charger Base will illuminate.

## System Mute Switch

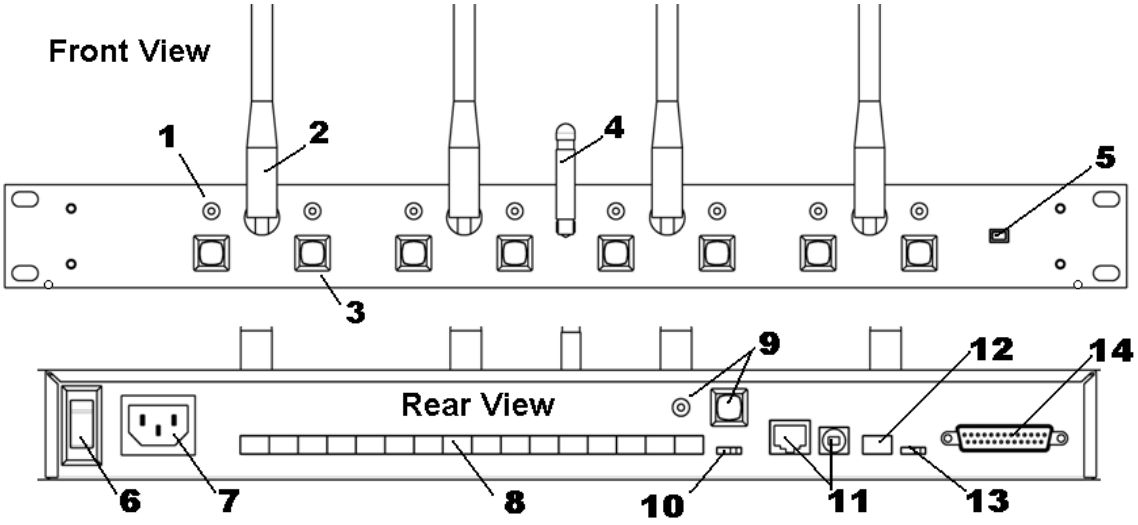
The System Mute button (#1, in above figure) on the Charger Base mutes all audio when pressed. During normal operation the Power Base LED will display solid GREEN (power on). In this mode, mute individual microphones as needed.

Pressing the System Mute button will mute all wireless microphones in the system and the Charger Base LED will turn RED. All active microphones will display flashing RED LED status indicating that the microphone audio is muted. To un-mute all microphones, press the system Mute button again. The Charger Base LED will return to solid GREEN, and all microphones will return to their state prior to the system mute.

Note: Pressing the Mute button on a microphone while the system mute is active (solid RED LED on Charger Base) will NOT un-mute the microphone.

# Using the Revolabs Solo™ Executive Base Station

The Revolabs Solo™ Executive Base Station, shown below in front and rear panel views, manages wireless audio signal processing, pairing, and muting between the Revolabs microphones and the Base Station.

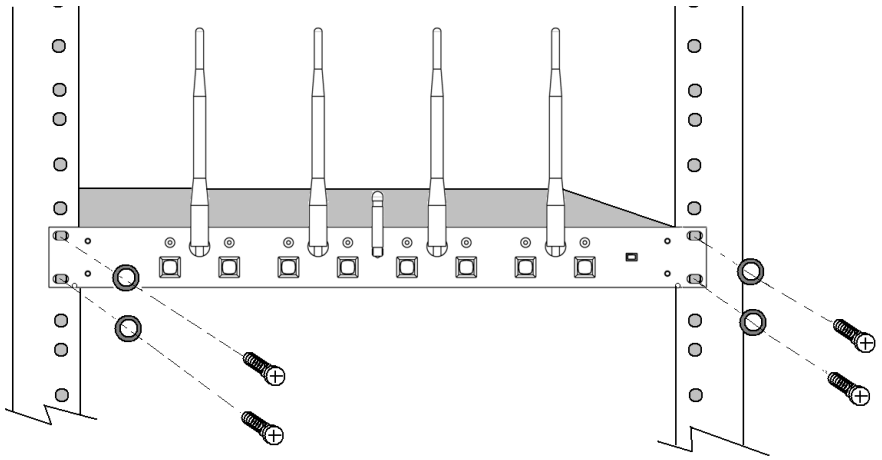



The Base Station includes the features and controls listed 1-14 on the following page (8 channel system shown numbered in the figure, above):

1. Channel LED indicators: Displays microphone and pairing states.
2. Diversity Antennae: One or two sets (4 channel or 8 channel).
3. Pairing Push Buttons: For pairing microphones to Base Station.
4. Muting Antenna.
5. Power On LED.
6. On/Off Switch: Powers up unit.
7. Power In Receptacle (AC In).
8. Mini-Phoenix Connectors: Audio in and out connections (4 or 8 channels in and out).
9. Learn Button and Signal LED: For linking Charger Base System Mute to Base Station.
10. Local/Remote selector switch for Multiple Base Station synchronization.
11. USB and Ethernet Ports (*Future use*).
12. Mini-Phoenix Connector: Multiple Base Station (BUS) synchronization connection.
13. System Mute function switch.
14. DB25 Control Port (Parallel IO Port).

# Installing the Solo Executive Base Station

The Revolabs Solo™ Executive Base Station is designed to be installed into a standard 19" AV rack system using the attached rack ears.



To setup the Base Station:

1. Plug the power cord into an appropriate outlet.
2. Turn the fuse-protected power switch on the back panel to Reset.

   The GREEN power LED on the front panel will illuminate.
3. Attach the diversity antennas (4 or 2 SMA female connectors) and the smaller System Mute antenna (SMA RP male connector) in the center.

## Understanding Revolabs Solo *TM* Executive Connections

There are eight 3.5mm mini-Phoenix input and output ports on the back panel of the unit (four on the 4-channel system) providing access to each channel's audio signal.

The provided mini-Phoenix connectors are designed for easy wiring. The three terminals (from left to right) correspond to positive +, negative -, and shielded ground⏚.

To connect the Solo Executive

1. Use the screws on top of the connector to first loosen the terminals.
2. Insert an appropriate 3 conductor cable (3 separate conductors, or 2 conductors and shield) into the terminals.
3. Tighten the screw to secure the cable.
4. Push the connector onto the pins centered under the desired input or output port until firmly secured.

There are four or eight output channels representing a separate channel for each microphone. Accordingly, there are four or eight input channels to the unit. The microphone output connectors need to be attached to the line-level (0dBu) input connectors of an audio mixer. PHANTOM POWER MUST BE OFF.

The Base Station input connectors (also 0dBu) may then be attached to mixer channel outputs. Because the system is full-duplex, the input connections provide the ability to hear program audio using a 2.5mm earpiece attached to the microphone (supplied with the wearable microphone).

Depending on the application, it is possible to feed a single mixed channel back to all earpieces or, alternatively, each user can receive a separate and unique channel. This would allow for translation, personal hearing assistance or other services to be incorporated into an application.

## Setting up the Solo Executive

The Base Station has four or eight indicator LEDs (one for each channel) and pairing push buttons on the front panel. When the LED is flashing GREEN or RED, that channel is active and connected to a wireless microphone (GREEN is for live audio, RED is for muted). When the LED is OFF, the channel is inactive (the microphone is out of range or turned off).

The front panel also has one or two sets of diversity antennas for optimal reception, and a smaller antenna for System Mute reception. These antennas are removable for relocation by installation professionals, based on the installation environment and coverage optimization requirements.

## Linking the Charger Base with the Base Station

*Linking* (like pairing) is used to create a link between the Charger Base System Mute control and the Base Station. When the Charger Base and Base Station are linked, the system may be muted by pressing the single button.

The Charger Base in new systems is already linked with the Base Station. However, if a new Charger Base is ever required, it will need to be manually linked with the Base Station.

To link the Charger Base with the Base Station:

1. Power-on the Charger Base and Base Station (power LEDs on both units will display GREEN).
2. Place the Base Station system into learning mode by briefly pressing the LEARN button on the rear connection panel. The LED next to the LEARN button will illuminate.

3. Press the Mute button on the Charger Base once. The LEARN LED on the back of the Base Station panel will go off and the power LED on the Charger Base will turn solid RED.
4. Press the Mute button on the Charger Base again. The LEARN LED on the Base Station will flash twice and the power LED on the Charger Base will turn solid GREEN.
5. Once the LEARN LED on the Base Station stops flashing, linking is complete and the Mute button on the Charger Base will mute all the microphones in the system.

There may also be instances when you will want to disable the System Mute function, such as when systems are used in dividable rooms.

To disable the System Mute function: Press and hold the LEARN button on the back of the Base Station for 10 seconds. The LED will stay red for a few seconds and then turn off. This clears the System Mute memory. While the System Mute light on the charger will change from GREEN to RED, the system will not mute. Repeat Linking instructions above to reactivate this control.

## Using the Rear Panel System Mute Function Switch

Under certain conditions it is preferable to use the muting capabilities in a DSP-based automated microphone mixer, instead of the Solo Executive Charger Base system mute.

This is particularly recommended when the mixer is providing acoustic echo cancellation and needs a continuous signal from every microphone to maintain a near-end audio reference. The two position System Mute switch located on the rear panel controls how the Base Station handles the audio output for muted channels.

Position 1 (left side – INT - default): Base Station completely shuts off audio out of each channel that is in the mute state.

Position 2 (right side - EXT): Slide the switch to the EXT position so that the audio output of muted channels stays at the same level yet signals the appropriate “mute out” pin on DB25 connector for line muting on external hardware (see *Using the Rear* Panel DB25 Control Port below).

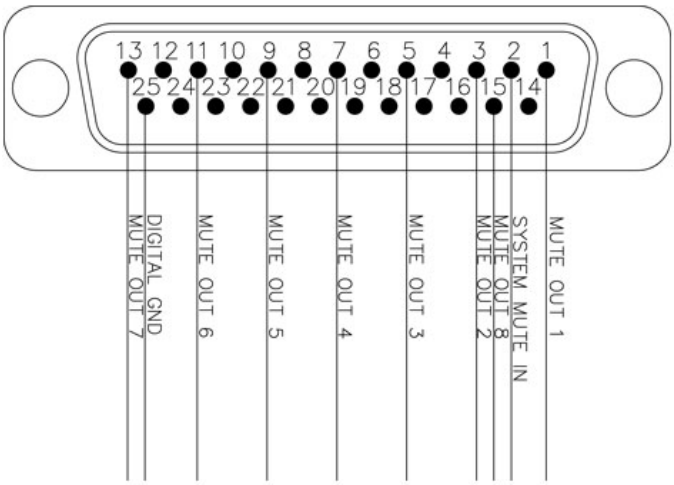
**Note:** *The Power Switch must be cycled (off/on) for the status change to take effect.*

**Warning:** *The Executive system will not mute when the switch is in the EXT Position (right side). Neither the microphone MUTE button, nor the System Mute button on the Charger Base will mute audio. Muting is available only by a third party audio mixer.*

## Using the Rear Panel DB25 Control Port

The DB25 Control Port allows the use of third party control and muting systems, using parallel port IO (active low, open collector).

The pin-out status functions, shown below, provide system muting operations via third party audio mixing products. Push the System Mute switch all the way to the right to operate this feature. The Mute OUT indicators determine individually muted channels and the SYS Mute IN mutes all channels by using a programmable muting macro in the control device.


13 12 11 10 9 8 7 6 5 4 3 2 1
25 24 23 22 21 20 19 18 17 16 15 14
DIGITAL GND
MUTE OUT 7
MUTE OUT 6
MUTE OUT 5
MUTE OUT 4
MUTE OUT 3
MUTE OUT 2
MUTE OUT 8
SYSTEM MUTE IN
MUTE OUT 1

**Connector Front View**

| **DB25 Connector Pin** | **Function** |
|---|---|
| Pin 1 | Mute – Channel 1 output |
| Pin 2 | System Mute – Input |
| Pin 3 | Mute – Channel 2 output |
| Pin 5 | Mute – Channel 3 output |
| Pin 7 | Mute – Channel 4 output |
| Pin 9 | Mute – Channel 5 output |
| Pin 11 | Mute – Channel 6 output |
| Pin 13 | Mute – Channel 7 output |
| Pin 15 | Mute – Channel 8 output |
| Pin 25 | Ground |
| Pin All Others | Not Used |

Please refer to the third party control device operating manual for more information regarding setup and programming.

## Using the Rear Panel BUS Connector for Multiple Systems

If more than one Revolabs Solo™ Executive Base Station is used in an area, each unit needs to be interconnected with a synchronization (BUS) cable using a standard 3.5mm mini-Phoenix connector, and the LOCAL / REMOTE switch needs to be adjusted on one or more of the units.

The three terminals of the BUS connector correspond to positive +, negative -, and ground⏚ (seen left to right with the connector installed). See *Understanding Connectors* above for further details.

Set one Base Station as the REMOTE by sliding the switch next to the BUS port to the right. The other unit must remain set to LOCAL (switch to the left - default position). In this configuration, the LOCAL unit manages the entire system, distributing microphone transmission across available channels to maintain frequency integrity, and coordinating system muting.

Position 1 (left side – LOCAL - default): This designates the Base Station as the master control unit. **See Appendix B for additional instructions.**

Position 2 (right side - REMOTE): Slide the switch on the second system to the REMOTE position so it is controlled by the LOCAL unit.

**Note:** *The Power Switch must be cycled (off/on) for the status change to take effect.*

**Warning:** *The switch must be in the LOCAL position for a single Base Station system. Microphones will not function if the switch is in the REMOTE position.*

In EU frequency systems, additional Base Stations can be connected by paralleling conductors through the mini-Phoenix terminals (e.g., there would be two conductors in each of the three terminals of the second Base Station in a three Base Station system.) Additional systems would also be set to the REMOTE position.

The maximum number of microphone channels within a 100’ (30m) radius in North America is 16 channels. The maximum number of channels within a 100’ (30m) radius for an EU frequency system is 24 channels.

**Note:** *An Executive Single Channel can not be used in the same installation with an Executive multichannel system because there is no way to synchronize the units to prevent mutual signal interference.*

# Using Revolabs Microphones and Microphone Adapters

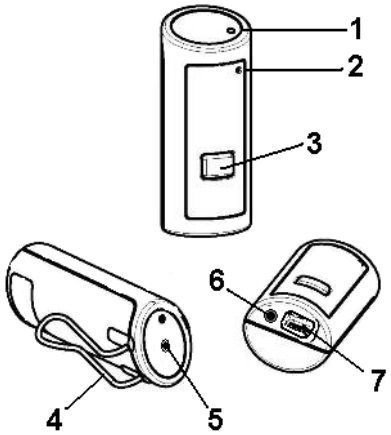
Use any of three microphones with your Revolabs Solo™ Executive system:

- Revolabs Solo™ Wearable Wireless Microphone.

- Solo Tabletop Wireless Boundary Microphone.
- Solo Universal Wireless Adapter for Handheld Microphones.

## Using Revolabs Solo ™ Wearable Wireless Microphones

The Revolabs Solo™ Wearable Microphones, shown in the following figure, are paired to the Base Station and can be worn on the user's shirt pocket, lapel or on a lanyard. They provide high quality full duplex audio between each user and the conferencing or audio system.




1. Microphone port — direct port toward mouth for best audio pickup.
2. Noise cancelling port — do not block opening.
3. Mute Button — press to mute, un-mute and pair microphone.
4. Pocket clip — also used to attach microphone to lanyard.
5. LED display — visual status for mute, un-mute, and pairing.
6. Earpiece jack — accepts the 2.5mm plug for the earpiece.
7. Charging port — docks to Solo Charger Bases.

**Note:** *Microphones in new systems must be paired to the Base Station with each microphone assigned to a unique channel on the base unit. See pairing instructions below.*

Revolabs Solo™ Wearable Microphones turn on and mute automatically when removed from Charger Base, to reduce noise while being attached. The microphone has a clip on the back which allows the microphone to be easily attached onto a shirt pocket, blouse, lapel or lanyard.

To use the Wearable Mic:

1. Remove the microphone from the Charger Base.
2. Attach the microphone to clothing or to a lanyard close to the mouth, within 6 - 12 inches (15 – 30cm) is recommended. Make sure microphone is attached securely with the microphone port pointed up toward mouth.

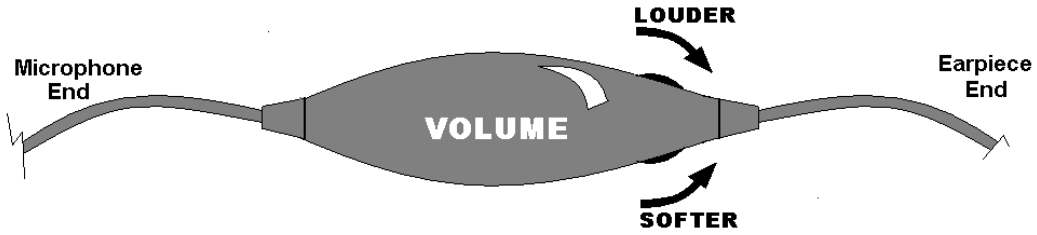
3. With the microphone in the wearing position, un-mute the microphone by pressing and releasing the Mute button (confirm by viewing flashing GREEN LED). If the volume is too low, move the microphone closer to the mouth.
4. To turn microphones off, return the microphone unit to the Charger Base or press and hold the Mute button for ~10 seconds until the LED turns solid RED and release button.

If the microphones are moved out of range of the Base Station (~100 feet or 30 meters) the connection will be dropped (LED flashes all colors) and the microphone will mute.

After 15 seconds the microphone will beep 5 times, and will continue beeping every 30 seconds to remind the user to return the microphone to the conference room. If the microphone is moved back into range within 15 minutes the connection will automatically be re-established to its original state, and the beeping will cease. If not, the microphone will turn off.

### Adjusting the Volume on the Wearable Microphone Earpiece

To change the volume on the Wearable microphone earpiece, use the dial on the earpiece wire.

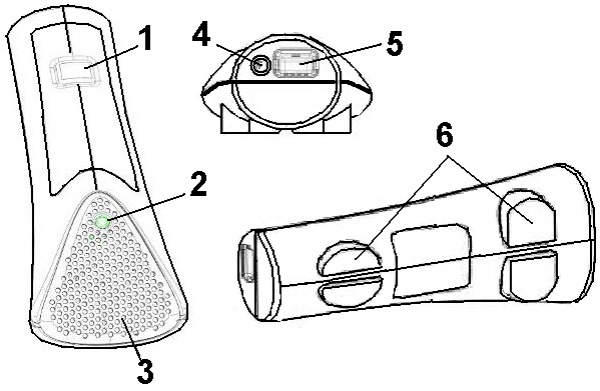



Turning the dial towards the earpiece, as shown in the figure, will increase the volume, and turning the dial towards the microphone will decrease the volume. Use the attached clothing clip to secure the earpiece wire.

## Using Solo Tabletop Wireless Boundary Microphones

The Solo TableTop Wireless Boundary Microphones enable multiple conference attendees to use a single microphone.

The TableTop Wireless Microphone, shown on the following page, is designed to provide optimum coverage when placed on a conference room table.




1. Mute button — press to mute, un-mute and pair microphone.
2. LED display — visual status for mute, un-mute, and pairing.
3. Integral grille — protects internal parts (non-removable).
4. Audio jack — accepts a 2.5mm plug.
5. Charging port — docks to Solo Charger Bases.
6. Rubber feet — non-slip, vibration absorbing pads.

To use the Revolabs Solo™ TableTop Microphone:

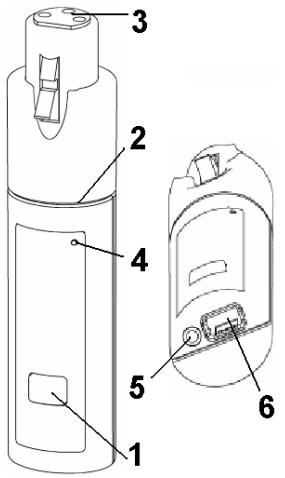
1. Remove the microphone from the Charger Base to turn on and automatically mute the mic (indicated by a flashing RED LED) during placement on the conference table.
2. TableTop microphones should be centered on the table with the integral grill pointed toward the users (uni-directional), or centrally located between users (omni-directional), from 2 to 5 feet (.75 to 1.75m) away. It is always better to be as close to the person speaking as possible, but avoid placing the microphone where it might be blocked by equipment or meeting paperwork. Also do not place microphones too close to an audio or video conference speaker to avoid echoes.
3. With the microphone in position, un-mute the microphone by pressing and releasing the Mute button (confirm by viewing flashing GREEN LED).
4. To turn microphone off, return the microphone unit to the Charger Base or press and hold the Mute button for ~10 seconds until the LED turns solid RED and release button.

If the microphones are placed too far from the Base Station (~100 feet or 30 meters) the connection will be dropped (LED flashes all colors) and the microphone will mute. After 15 seconds the microphone will beep 5 times, and will continue beeping every 30 seconds to indicating it's out of range.

Move the microphone closer to the Base Station and the connection will automatically be re-established to its original state, and the beeping will cease. If not, the microphone will continue beeping until it turns off in about 15 minutes.

## Using the Solo XLR Microphone Wireless Adapter

The Revolabs Solo™ Universal Wireless Adapter for Handheld Microphones, shown in the following figure, is connected to your existing handheld dynamic microphones for wireless freedom during open mic meetings, Q&A sessions, classrooms, etc.

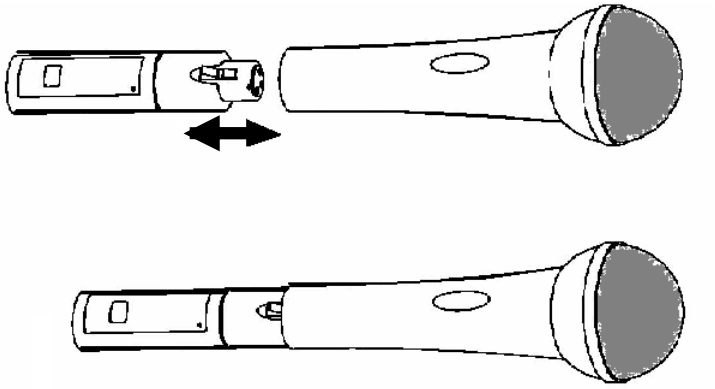



1. Mute button — press to mute, un-mute and pair microphone.
2. Rubber collar — durable and impact/strain protection.
3. XLR Female connector — balanced audio for dynamic microphones.
4. LED display — visual status for mute, un-mute, and pairing.
5. Audio Out port — accepts the 2.5mm plug for the earpiece.
6. Power/Charging Port — docks to all Solo Charger Bases.

To use the Revolabs Solo™ Universal Wireless Adapter:

1. Remove the Microphone Adapter from the Charger Base.

   The adapter turns on and mutes automatically when removed from Charger Base (flashing RED LED). The XLR Microphone Adapter is attached to a standard dynamic microphone to convert it from a wired microphone to a wireless microphone (see following figure).



The Adapter does not provide phantom power or bias current so it cannot be used with condenser or electret microphones.

2. With the microphone attached, un-mute the Adapter by pressing and releasing the Mute button (confirm by viewing flashing GREEN LED).

   **Note:** *If the microphone has an on-board mute switch, this switch must also be un-muted prior to use.*

3. To turn the Adapter off, return the microphone unit to the Charger Base or press and hold the Mute button for ~10 seconds until the LED turns solid RED and release button.

   **Important**: Always remove the microphone from the Adapter by pressing the latch switch and separating the parts before returning the Adapter to the Charger Base.

If the Adapter is moved too far from the Base Station (~100 feet or 30 meters) the connection will be dropped (LED flashes all colors) and the audio will mute.

After 15 seconds the microphone will beep 5 times, and will continue beeping every 30 seconds to indicate that it is out of range.

Move the XLR Adapter closer to the Base Station and the connection will automatically be re-established to its original state, and the beeping will cease. If not, the XLR Adapter will continue beeping until it turns off in about 15 minutes.

## Charging the Microphone Batteries

**First-time use** — before using the wireless microphone the first time, charge the batteries in the microphones for eight hours (or overnight) in the Charger Base.

**Recharging** — when the YELLOW LED starts to flash intermittently on the microphone the battery has 30 minutes of charge remaining. Over time (years), batteries gradually wear down and require longer charging times. This is normal. Always return microphones to the Charger Base when not in use.

**Important**: *The Lithium Polymer rechargeable batteries that power the microphones are not user serviceable. Please contact Revolabs (www.revolabs.com) or your AV service provider for replacement instructions and to assure the proper disposal method is used.* ***Warning: Never dispose of batteries in a fire because they may explode.***

To charge the batteries place microphones into the Revolabs Solo™ Executive Charger Base and the mic LED's will display a 5 blink "self test". During charging, the LED indicator will be RED when mics are discharged and turn GREEN when charged. The microphones are muted while in the Charger Base.

In normal use, batteries should fully charge in about 2 hours, and can be "quick-charged" to 80% capacity in 45 minutes.

The batteries of microphones left in the Charger Base remain solid GREEN.

**Note:** *In earlier versions of microphone software the LED turns OFF when fully charged, not GREEN. In all cases, a fully charged battery provides approximately 8 hours of talk time.*

## Pairing Wireless Microphones to Base Station

*Pairing* creates a link between the Solo wireless microphone and the Base Station, with a unique electronic serial number. When the microphone and Base Station have been previously paired, the mic will automatically try to connect to the Base Station whenever it is lifted from the Charger Base.

**Note:** *Note: Microphones in new systems must be paired to the Base Station with each microphone assigned to a unique channel on the base unit.*

Remember, microphones are always muted (flashing RED LED) when they are removed from the Charger Base and the Mute button needs to be pressed to make it "live" (flashing GREEN LED).

A microphone that is not paired will be indicated by either cycling RED-GREEN, or RED-YELLOW-GREEN LED patterns. A Base Station channel that is not paired to a microphone will not show any activity on the channel LED (make sure unit is first powered on by observing GREEN power LED on the front panel).

When channels are paired, both microphone and channel LEDs will flash RED as microphones are removed from the Charger Base and flash GREEN when un-muted. Remember that only one microphone can be paired to any single Base Station channel.

To pair the microphone to the Base Station:

1. Turn the microphone OFF (no LED activity). If the microphone is ON, press and hold the Mute button for 10 seconds until the LED turns solid RED (do not release when you hear two beeps). Release the button to turn the unit off.
2. Place the microphone unit into pairing mode by holding the Mute button down for seven seconds. The LED will turn solid RED. Release the Mute button. The microphone is now in pairing mode.
3. Within one minute, push and hold the button for the desired channel on the Base Station for seven seconds to enter into pairing mode then release. The LED for that channel will be solid red until pairing starts, as indicated by a

quick GREEN flash, then switching to flashing RED on both the microphone and the Base Station (muted audio). Pairing is now complete.

# Revolabs Solo™ Executive Indicator LEDs

The following tables show activities associated with the various states shown by the LEDs:

| Equipment Use | Microphone LED | Base Station Channel LEDs | Meaning |
|---|---|---|---|
| Microphone in Charger Base | Solid RED | OFF | Charging in Progress |
| | Solid GREEN* | OFF | Charging Complete |
| Microphone not in Charger Base | OFF | OFF | Microphone powered OFF or battery discharged |
| | Two RED flashes every 1.5 seconds | RED Flashing | Microphone paired and muted |
| | GREEN flash every 1.5 seconds | GREEN Flashing | Microphone paired and "live" |
| | Solid RED | Solid RED | Pairing mode or confirmation of powering-down. |
| | Alternating slow GREEN and RED | OFF or Alternating slow GREEN and RED | Microphone or channel not paired |
| | YELLOW flash alternating with GREEN | GREEN Flashing | Microphone low battery (mic live) |
| | YELLOW flash alternating with two RED flashes | RED Flashing | Microphone low battery (mic muted) |
| | Alternating RED, YELLOW, GREEN, YELLOW | OFF | Searching for a connection, or out of radio range. The Microphone will try to re-establish the link for about 15 minutes, and then turn off automatically. |
| | Rapid RED flashes continuing for more than a few seconds | OFF | Radio congestion – it is not possible to make a radio connection because there are already too many nearby users, or there is heavy radio interference. Possibilities include some types of digital cordless phones, and other Solo installations. |
| | Groups of five rapid RED flashes | OFF | Unit is faulty. Contact your AV service provider for advice. |

* In earlier versions LED will turn OFF when fully charged.

## Warranty

Revolabs, Inc. warrants this product to be free of manufacturing defects. Repair or replacement of any defective part or unit (at the discretion of the Seller) will be free of charge for the period of one year.

Any attempt by the user to alter the equipment, or equipment damaged by negligence, accident, or Acts of God voids this warranty.

The Seller shall not be liable for any consequential damage resulting from the malfunction of this product. Should the user experience unsatisfactory performance from this equipment, contact the Seller to obtain instructions for return, or replacement, as deemed necessary.

This warranty is not transferable by the original end user.

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Maynard, MA 01754
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# Specifications

**Dimensions, (L, W, H) and Weight**:

| | |
|---|---|
| Executive Base Station | 16.9” (43.03 cm) x 8.0” (20.32 cm) x 1.7” (4.42 cm), 6.5 lbs (2.95 kg) |
| Charger Base | 8.3” (21.1 cm) x 4.3” (10.9 cm) x 1.0” (2.56 cm), 1.0 lb (0.45 kg) |
| Wireless Microphones | Wearable: 0.9” (2.3 cm) x 0.8” (2.0 cm) x 2.6” (6.6 cm), 0.05 lb (0.02 kg) |
| | TableTop: 1.5” (3.8 cm) x 0.8” (2.0 cm) x 3.3” (8.4 cm), 0.05 lb (0.02 kg) |
| | XLR Adapter: 0.9” (2.3 cm) x 0.8” (2.0 cm) x 4.0” (10.2 cm), 0.05 lb (0.02 kg) |
| Shipping Weight | 12.0 lbs (5.45 kg) |

**Radio Frequency**:

| | |
|---|---|
| 01-EXESYS(4) | 1.92 to 1.93 GHz (UPCS North America) |
| | 315 MHz (System Mute North America) |
| 03-EXESYSEU(4) | 1.88 to 1.90 GHz (DECT EU) |
| | 433.92 MHz (System Mute EU) |

**Connectors**:

| | |
|---|---|
| Base Station Audio | Phoenix (3.5mm) quick connect terminal blocks (8/4 In & Out) |
| Sync BUS In/Out | mini-Phoenix (3.5mm) quick connect terminal block |
| Diversity Antenna | SMA Plug Female Base, Male Antenna (50 ohm) |
| System Mute Antenna | SMA Jack RP Base, Female RP Antenna (50 ohm) |
| Control Port | DB25 Socket |
| Ethernet - RJ45 | (future use) |
| USB – Type A | (future use) |
| Charger Base | DC power input port, Proprietary 4 pin microphone charge jacks |
| Microphone | Proprietary 4 pin charge plugs, 2.5mm mono earplug port (16 ohm) |
| Microphone patterns | Unidirectional cardioid 01(03)-EXEMIC (EU), 05-TBLMIC (EU)-DR<br>Omnidirectional 05-TBLMIC (EU)-OM |

**Power Requirements**:

| | |
|---|---|
| Executive Base Station | 100-240V AC, 50-60 Hz, 10W (power cable varies by country) |
| Charger Base | 5V DC, 2 Amps (switching power supply varies by country) |

**Range**: 100’ (30 meters) approx. (no obstructions)

**Maximum Audio Channels**:

| | |
|---|---|
| 01-EXESYS | 12 to16 channels maximum (2 systems) |
| 01-EXESYS4 | 8 channels maximum (2 systems) |
| 03-EXESYSEU | 20 to 24 channels maximum (3 systems) |
| 03-EXESYSEU4 | 8 channels maximum (2 systems) |

**Battery**: Lithium Polymer, 8 hours approx. talk time

**Charge Time**: 2 hours approx.

**Audio Bandwidth**: 100-7000 Hz

**Security**: 128-bit DSAA (DECT Standard Authentication Algorithm) authentication, 64 bit DECT Standard Cipher

**Included Accessories**: 1 Earpiece with inline volume control and 1 Lanyard per Wearable Microphone

**Environmental Requirements**:

| | |
|---|---|
| Temperature | 40° to 105° F (5° to 40° C) operating |
| Humidity | 20% to 85% |

# Appendix A – Adjusting Base Station Power Level

**Important**: Adjusting RF power settings as described below should only be performed by trained and authorized audiovisual personnel.

All Revolabs Solo™ products contain MaxFlex™ technology, enabling multiple systems with a variety of microphone types to be deployed within the same building.

One of the main features of our products that allow multiple units to coexist in a building area, without interference is the ability to lower the RF broadcast power of Executive Base Stations.

Solo Executive Base Stations are normally delivered from the factory configured for high power mode, which is appropriate for most installations. High power mode equates to the specified usable microphone range of 100 feet (30M) for the multi-channel Executive system or 65 feet (20M) for the single channel system.

If a Solo Executive system needs to operate within the radius of another system, it is usually advisable to set all the systems to reduced power levels to preclude systems from interfering with each other. Interference between systems may cause occasional audio noise and signal dropouts on affected channels.

A Solo Executive multi-channel system has two lesser power settings available that deliver usable microphone ranges of 30 feet (power level 2) and 8 feet (power level 3). A Solo Single Channel system also has two lesser power settings delivering usable microphone ranges of 20 feet (power level 2) and 6 feet at power level 3.

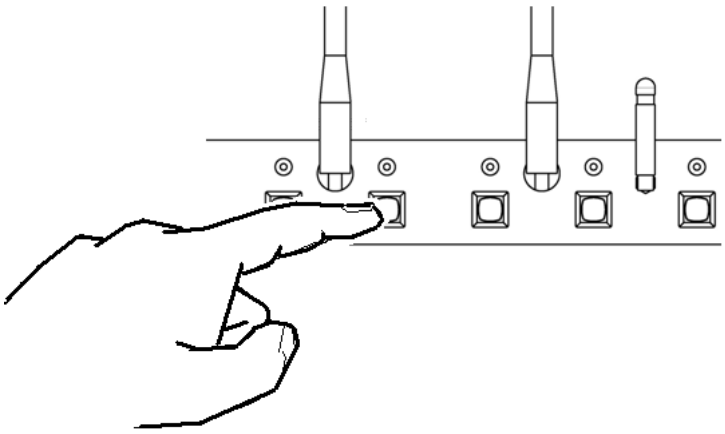
In performing the following process, it may help to understand that an 8-channel Executive base station rack unit has four radio transceivers - each associated with a pair of audio channels - and that each transceiver needs to be configured separately.

Similarly, a 4-channel Executive base station rack unit has two radio transceivers, while a single channel system has just one transceiver in the charging Base Station.

To configure a multi-channel Solo Executive base station for reduced power level modes:

1. Power-off base station at the power switch on the back of the unit

2. Press and hold the CHANNEL 2 button and power-on the unit



3. Release the button after the channel LED flashes green twice for reduced power level 2. Release the button after the channel LED flashes green three times for reduced power level 3. The power levels will continue to cycle through the settings until the button is released.
4. Repeat steps 1 to 3 with the CHANNEL 4 button
5. Repeat steps 1 to 3 with the CHANNEL 6 button (8 channel system only)
6. Repeat steps 1 to 3 with the CHANNEL 8 button (8 channel system only)

When the base station is powered-on again, the LEDs will give one green flash on channels 2, 4, 6, and 8 to indicate that the system is in high power mode, twice to indicate reduced power level 2, and three times for reduced power level 3.

*Note: Always confirm that all transceivers are set at the same power level setting. Each channel will repeat the flash 10 times to indicate setting when powered on, so make sure all odd channels flash the same number of times on the unit.*

**Note:** *An Executive Single Channel can not be used in the same installation with an Executive multichannel system because there is no way to synchronize the units to prevent mutual signal interference.*

# Appendix B – Synchronized System Channel Settings

***Note:*** *Adjusting channel settings as described below should only be performed by trained and authorized audiovisual personnel.*

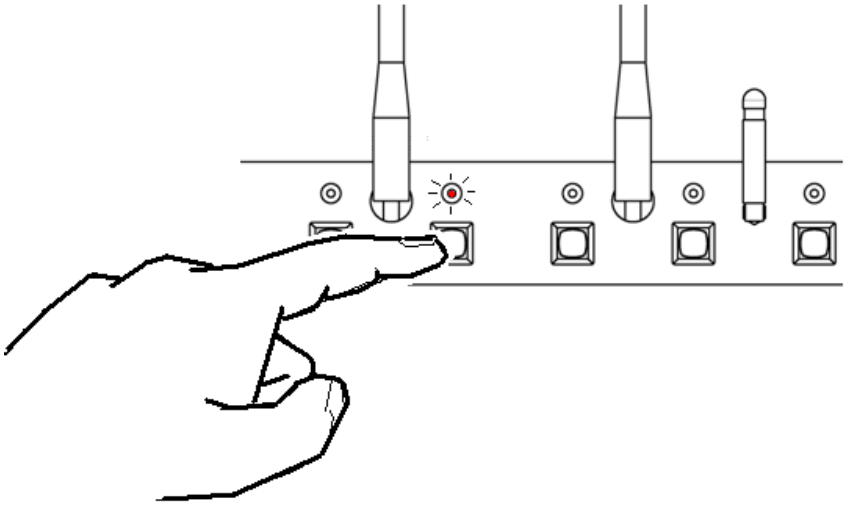
Revolabs Solo™ products contain MaxFlex™ technology, enabling multiple systems within the same building. While adjusting power levels permits the use of more Executive systems in a space, optimizing the RF channel selection of multiple synchronized base stations avoids channel interference. Revolabs Solo™ Base Stations are normally delivered from the factory configured for unrestricted channel selection. This means that the Base Station selects the best carrier frequencies to transmit and receive signals, avoiding interference from other sources.

When a project needs more than 8 microphones and we synchronize it to another Solo 4 or 8 channel system using the BUS connector, it is usually also necessary to set the systems to alternate channel configurations to preclude systems from interfering with each other. Interference between systems may cause occasional audio noise and signal dropouts on affected systems. A Revolabs Solo™ Executive system has two optional channel configurations available when systems need to be synchronized: A Mode, and B Mode.

Remember that an 8-channel Executive base station rack unit has four radio transceivers - each associated with a pair of audio channels - and that each transceiver needs to be configured separately. Similarly, a 4-channel Executive base station rack unit has two radio transceivers.

**To configure the Revolabs Solo™ Executive 4 and 8 Channel base station for synchronized channel modes:**

1. Power-off base station at the power switch on the back of the unit.
2. Press and hold the CHANNEL 1 button, power-on the unit.



3. Release the button after the channel LED flashes GREEN twice for synchronized Mode A. Release the button after the channel LED flashes green three times for synchronized Mode B. If you miss the Mode you are configuring, the system will continue to cycle through all options.
4. Repeat steps 1 to 3 with the CHANNEL 3 button
5. Repeat steps 1 to 3 with the CHANNEL 5 button (8 channel system only)
6. Repeat steps 1 to 3 with the CHANNEL 7 button (8 channel system only)

When the base station is powered-on again, the LEDs will give one GREEN flash on channels 1, 3, 5, and 7 to indicate that the system is in single system mode, twice to indicate A Mode, and three times for B Mode.

***Note 1:*** *Always confirm that the Base Station set to the "Local" switch setting is in Mode A, and that the "Remote" Base Station is in Mode B.*

***Note 2:*** *When using a 4-channel system with an 8-channel system, assign the 4-channel system to "Local" and Mode A.*

***Note 3:*** *Always confirm that all transceivers are set at the same channel setting on each Base Station.*

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***Note:*** *Revolabs Solo™ Single Channel system does not offer synchronized operation.*

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**Note:** *Microphones must be fully charged and paired to the Charger Base prior to first use.*

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